a cost analysis of egg production in alberta 1985

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A COST ANALYSIS OF EGG PRODUCTION IN ALBERTA 1985

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FOREWORD

Table eggs in Alberta are priced by C.E.M.A. using national estimates of production costs. The main objective of this study is to determine the cost of producing eggs in Alberta.

This report indicates that in 1985, it cost 85 cents to produce a dozen eggs in Alberta, up 1.6 per cent from 1984. Returns exceeded costs by only 2.2 cents per dozen eggs. However, if producers were to achieve a target rate of return to equity of, let's say, 10 per cent, an additional 6.1 cents per dozen was needed.

As Alberta has no control over pricing, our primary concern in the Production and Resource Economics Branch is to provide Alberta producers with information on the economics of egg production so that they can improve their productive efficiency. Producers can begin by comparing their egg enterprise with the provincial average. They can also compare their performance with the top management group. By improving productive efficiency, producers can cut costs and/or increase production, thereby increasing the profitability of the egg enterprise.

DR. CARLYLE ROSS,
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ACKNOWLEDGEMENT

This report was prepared from farm records of a selected number of egg producers in Alberta who voluntarily participated in this project. Their participation was encouraged by the Alberta Egg Marketing Board.

Appreciation goes to each participating producer for his time and effort in providing the data.

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I. INTRODUCTION

The Canadian commercial table egg industry is controlled by the Canadian Egg Marketing Agency (CEMA). One of the objectives of CEMA is to establish an equitable price for commercial eggs in each province. To meet this objective, CEMA depends very heavily on a national cost of production study which the agency undertakes. The central focus of the national study is to establish the national production cost of eggs, and thus the national price.

Alberta Agriculture, along with the Alberta Egg Marketing Board, initiated a provincial cost study in 1983 to monitor the relation between the national cost and the provincial (Alberta) cost. This 1985 report is the summary of the third year of that study.

More specifically, the objectives of the study were:

- to provide an account of the costs and economic conditions encountered in the production of commercial eggs in Alberta.
- to analyze the present price efficiency in Alberta.
- to provide the participating producers with a personal economic analysis for management purposes.
- to also provide data for Alberta Agriculture staff to use in extension education.

The provincial cost of production is a very accurate economic indicator of the industry in Alberta and can be used by the provincial egg marketing board in its dealings at the national level.

II. METHOD OF ANALYSIS

Many approaches may be used to estimate the cost of production on the farm. The approach taken in this study is to show the actual cost outlays, taken from the farm records for a given production year. A computer program is utilized to summarize the data and calculate the weighted averages.

There are two basic alternatives to estimating the economic well being of the farm enterprise. Alternative A determines the return to family labour, including the operator labour input; alternative B determines the return to equity invested in each particular enterprise. The methods, as identified in Table 1, are quite compatible, and in each case some major assumptions are made. In alternative A where the residual is return to family labour, an equity interest charge must be imputed in order to arrive at the total cost of production. The actual residual can then be measured in terms of dollars per hour of labour. On the other hand, using alternative B, the value of family labour must be imputed since there is usually no value attached to this input.

In this study, the principles of alternative B are used, i.e. the objective is to determine the percentage return to equity. The imputed value of family labour is included in the variable costs. This is more practical for a number of reasons: i) incorporated farms usually allocate total labour expenses, including family; ii) the imputed family labour expenses are real, considering money is used for living expenses during the year; iii) imputed interest, or opportunity cost on equity, used in Alternative A, is a controversial issue in a period of persistent inflation or deflation of capital assets, and the value is difficult to estimate.

The charges for rent are included in the cost of capital. The capital cost in this context represents the cost of ownership of resources. If resources are rented there is a charge for their use; on the other hand, if resources are owned, the owner must bear the cost of depreciation and interest on debt. For group averages, classification into variable and capital cost is very suitable.

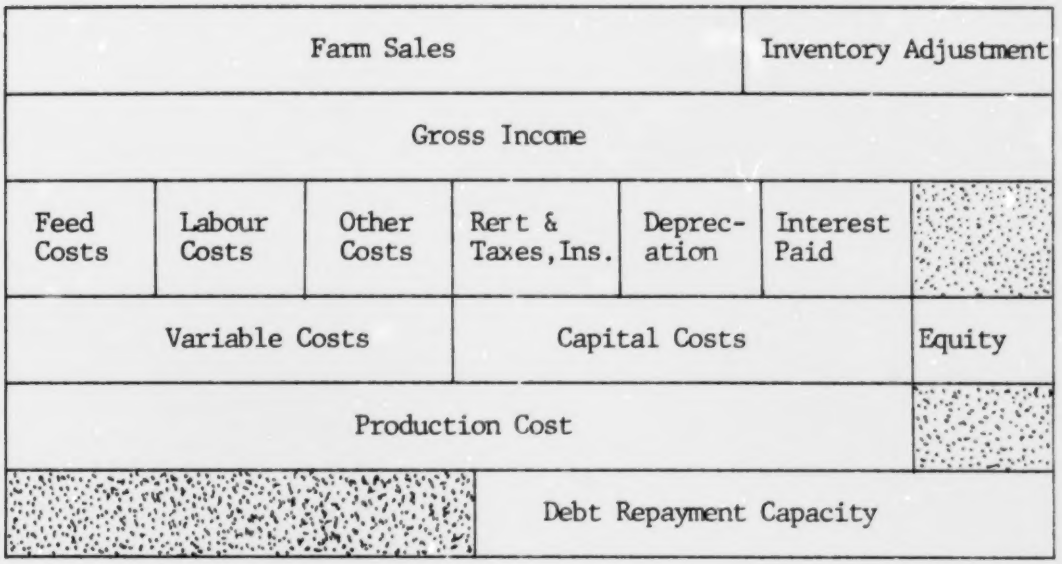
TABLE 1: ALTERNATIVE RETURNS

A. LABOUR	B. CAPITAL
Gross Income	Gross Income
Feed	Feed
Other	Other
Hired Labour	Hired Labour
-	Family Labour (Imputed)
Variable Cost	Variable Cost
Rent	Rent
Depreciation	Depreciation
Paid Interest	Paid Interest
Equity Interest (Imputed)	-
Capital Cost	Capital Cost
Return to Family Labour	Return to Equity

The cost summaries in this report are based on enterprise analysis. Namely, the expenses and income associated with a given enterprise are allocated from the total farm activities. Producers generally handle several enterprises on the same farm, therefore, allocating the appropriate outlays for each enterprise is not easy. Expenses such as utilities, fuel, etc. are purchased on a total farm basis and require a proper allocation for different uses. The egg enterprise is defined as all activity associated with the laying operation. In some cases the operator raises his own feed; the inputs of production are allocated to the egg enterprise and the total farm according to the actual use. Consequently, the final costs of producing eggs are the true costs associated only with egg production.

Where grading was reported, it was excluded for cost estimation and only cost of ungraded eggs was assumed. Similarly the actual cost associated with home raised pullet was not considered in the layer operation; pullets were assumed to be purchased for a market price.

DIAGRAM 1



III. DATA COLLECTION

In order to obtain necessary information from layer operations, all producers on the study were required to complete a detailed input form to report their egg production income and expenses, as well as an investment statement. This form is shown in Appendix A of this report.

The data was obtained through a series of personal interviews with the participating producers. The information was then entered into the computer. The computer output, shown in Table 2, is supporting material for the analysis. Thirty-nine egg producers across the province submitted business information for the calendar year 1985.

Sample: Although the number of all egg producers in Alberta is not that large (247), it is not necessary to study the cost of every producer. A sample of forty producers was selected to be statistically sufficient to represent the total population of producers.

It was established that the standard deviation of cost of producing eggs in the population of egg producers was 16¢ per dozen. The desired estimate of cost was assumed to be within 5¢.

The sample size was then determined by:[1]

$$n = \frac{4 \times S^2}{L^2}$$

Where: n is sample size

S is standard deviation of population

L is expected accuracy of mean

---

1 The above equation was derived from:

(1) $S_x = \frac{S}{n}$

(2) $L = S_x \times t_{0.05}$

Where: S_x is standard error of mean

$t_{0.05}$ is constant 1.96 from student's distribution table.

The study was designed to represent a cross-section of the producers by the size of bird quota. The provincial egg producers were arranged according to the quota size from smallest to largest in each area (6 areas are recognized). The sample was selected by systematic sampling to provide better representation of population. The average quota, in terms of number of layers, was 5,700 birds. Out of the 1985 sample of 40 producers, 39 completed reports for the 12-month period in 1985.

IV. ANALYSIS OF THE RESULTS

The cost and returns summary for the layer operation in Alberta in 1985 is shown in Table 2. The provincial average of 39 producers is shown on a per bird and per dozen eggs produced basis. This information was adopted for a specific use for the enterprise cost of production, and should not in any way be construed as income tax data or actual cash flow on a farm.

Income:

The majority of receipts from table egg farming is generated by sale of commercial eggs through the grading station, as well as private sale of eggs. The volume of sales for each producer is recorded by the Marketing Board for a levy imposition. This levy in 1985, amounted to 10¢ per dozen. The blend price, i.e. the price for all grades of farm eggs, was 95.43¢ per dozen in 1985. This is a gross price, without the deductions of levy and freight. The levy is not considered to be a cost of production item, but rather a reduction in the price. On the other hand, the cost of freight, or cost of using trucks for egg hauling, is included in the cost of producing eggs. In 1985 there was an additional income of 1.7¢ per dozen from the sale of culled birds. Total income per dozen reached 87.2¢ in 1985.

Pullet Cost

In the case of most farms studied, the hens are replenished every 52 weeks. The 52 week laying period coincides with the annual production period covered in this study. There is an indication that about 65 per cent of producers buy pullets while the remainder raise their own. While the cost of buying pullets is a cash outlay, the cost of farm raised pullets is estimated at the pullet's market price. This more than compensates the actual pullet cost on the farm. The estimated pullet price in 1985 was $3.65 per bird. The feed cost and other costs associated with raising pullets were thus not included for layer operations. The final average cost for buying one bird in 1985 was $3.51 and represents a cost of 17.8¢ per dozen eggs. The pullet cost accounted for 20.3 per cent of income, the second highest cost item after feed.

ENTERPRISE RESEARCH PROJECT 1985 PROVINCIAL AVERAGE

TABLE EGGS COSTS AND RETURNS

			TOTAL	DOLLARS PER HEN	CENTS PER DOZEN
EGG SALES	114743.37	DOZEN	109493.75	20.05	95.43
BIRDS SOLD			1960.98	0.36	1.71
SALE DEDUCTIONS			-11380.09	-2.08	-9.92
OTHER RECEIPTS					
A. GROSS INCOME			100074.62	18.32	87.22
PULLET COSTS	3.51	$/PULLET	20379.07	3.73	17.76
FEED COSTS	190.44	$/TONNE	44778.48	8.20	39.02
MEDICATION			175.55	0.03	0.15
BARN SUPPLIES			383.55	0.07	0.33
ENERGY			3318.90	0.61	2.89
MACHINERY & BUILDING REPAIRS			1224.95	0.22	1.07
FREIGHT			970.72	0.18	0.85
OPERATING INTEREST			314.59	0.06	0.27
OTHER EXPENSES			1120.95	0.21	0.98
HIRED LABOUR	599.82	HOURS	3850.33	0.71	3.36
FAMILY LABOUR	1631.06	HOURS	10290.13	1.88	8.97
LABOUR COSTS	6.34	$/HOUR	14140.46	2.59	12.32
B. TOTAL VARIABLE COSTS			86807.00	15.89	75.65
RENT			60.90	0.01	0.05
INSURANCE & TAXES			713.74	0.13	0.62
DEPRECIATION			8075.48	1.48	7.04
INTEREST (CAP. LOANS)	10.13	%	1878.20	0.34	1.64
C. TOTAL CAPITAL COSTS			10728.32	1.96	9.35
D. PRODUCTION COSTS (B+C)			97535.37	17.86	85.00
GROSS RETURN(A-B)			13267.27	2.43	11.56
RETURN TO EQUITY (A-D)	2.66	%	2538.94	0.46	2.21
INVESTMENT:					
BUILDINGS	11.71	YEARS	79996.81	14.65	69.72
MACHINERY	8.19	YEARS	32588.69	5.97	28.40
LAND & SUPPLIES			1380.13	0.25	1.20
TOTAL INVESTMENT			113965.81	20.87	99.32
EQUITY	83.74	%	95433.62	17.47	83.17

MANAGEMENT:

YEARS FARMING	15.77	
AVERAGE NUMBER OF LAYERS	5461.38	
NUMBER OF FLOCKS	1.62	
PRODUCTIVITY	21.01	DOZEN
HOURS PER BIRD	0.41	
FEED CONVERSION FACTOR	2.05	KG/DOZEN
PRODUCTION/CAPITAL	1.01	DOZEN/$
MORTALITY PERCENT	8.86	

Feed Cost

The expenses for feed occupy the largest portion of the total cost for table egg farms. Spending on feed accounted for 44.7 per cent of income or 45.9 per cent of total production cost on layer farms.

The majority of producers, about 65 per cent, bought complete feed rations and the remainder used home grown grain mixed with supplement on the farm. The cost of feed was determined from each producer's feeding program where the quantity of each particular feed used in the layer operation was established. For purchased feed, the actual cash value was taken, while for home grown feed, the estimated value per tonne was applied to arrive at total feed cost.

For the sample group, average feed conversion, or quantity of feed used in producing a dozen eggs was 2.05 kg. The average price of feed was $190.44 per tonne. Please note that this is a blend price of complete feed as well as home grown grain. The purchased complete ration price alone, including delivery charge, was higher. The total feed cost amounted to $8.20 per bird, or 39.02¢ per dozen.

Labour Cost

Cost of labour consists of a value assigned to actual work performed for a layer operation. When more than one enterprise is present on the farm, it is important to properly allocate working time for table egg operation only. Three types of labour are recognized in this study. Operator, family unpaid labour, and hired labour. The cost of hired labour is the actual cash wages paid to hired workers. As operator and other family members are usually not paid in such a way, the value of their work has to be estimated at the cost of labour in the poultry industry.

Operator and unpaid family labour rates used in the 1985 study were $7.20 and $4.50 per hour, respectively. The objective was to determine the actual labour cost in agriculture and not in other alternative opportunities. Some studies used a value for management, however in this report, the management is rewarded by the bottom line return.

Due to the prevailing number of small farms, 410 hours of labour time was required for 1,000 birds per year. The total labour cost per

dozen eggs was 12.3¢, which is approximately 14.1 per cent of the income. The hired labour accounted for 26.9 per cent of the labour time.

Other Cash Expenses

This cost category consists of various cost items such as medication, barn supplies, energy, machinery and building repairs, freight, interest on operating loans and other expenses. The value of these items is determined from actual cash outlays made by the operator during the year, and appropriately allocated to the layer enterprise. In total, these expenses accounted for 6.5¢ per dozen eggs or 7.5 per cent of the sale price. The most significant item was cost for energy, followed by machinery and building repairs, together accounting for 60.5 per cent of this group total.

The operating interest is the actual cash outlay paid on outstanding operating loans during the year. Some other studies do not show the actual interest paid, but have estimated interest on working capital.

The above cost category together with pullet cost, feed cost and labour cost, form the so called variable cost of 75.7¢ per dozen eggs.

Cost Of Capital

The cost of capital is defined by the annual expenses associated with resource ownership. Depreciation, interest payments, insurance and taxes are all payments for resource ownership. Rent is included in this category because it is a form of payment for capital. The cost of capital has to be borne regardless of whether production is taking place or not, a major difference compared to variable cost.

The capital cost accounted for 10.7 per cent of the sale price, which is 9.4¢ per dozen eggs. It is important to keep down the proportion of capital cost to total cost because these expenses must be paid regardless of whether or not anything is produced. The more volume produced for a given investment, the less significant unit capital cost becomes.

The magnitude of the capital cost is dependent on the actual value of the assets. Depreciation is based on the original (purchased) value at the time of purchase; a 5 per cent rate on buildings and 10 per cent on machinery.

In order to determine the current equity position on the farm, the original value is updated to the present by a net inflation index[2]. The value of equity is used in determining the current return on equity. The estimated current value of the investment on layer farms was $20.9 per bird. On average, only 16 per cent of this value was financed and the rest (84%) was owner's equity.

This relatively low indebtedness resulted from a sample of communal farms which were included. Their debt is very low to non-existent. The blend interest paid for outstanding capital loans was 10.1 per cent.

The building investment accounted for 70 per cent and machinery 29 per cent of total investment, respectively. The average age was 11.7 years on buildings and 8.2 years on machinery.

For each dollar of invested capital 1.01 dozen of eggs was produced.

Returns

The return to equity is the final residual left after all expenses are subtracted from the gross income. It is a measurement of the economic well being of the farm enterprise.

Table egg farms in 1985 averaged about 2.2¢ return per dozen of eggs. This represents only 2.7 per cent from invested equity of $17.5 per bird.

TABLE 3 RETURN TO CAPITAL

		Per Bird
Total Investment ($)	100 %	20.87
Debt ($)	16.3%	3.40
Equity ($)	83.7%	17.47
Paid Interest Rate		10.1
Equity Interest Rate		2.7
Profit Per Cent of Sales		2.5

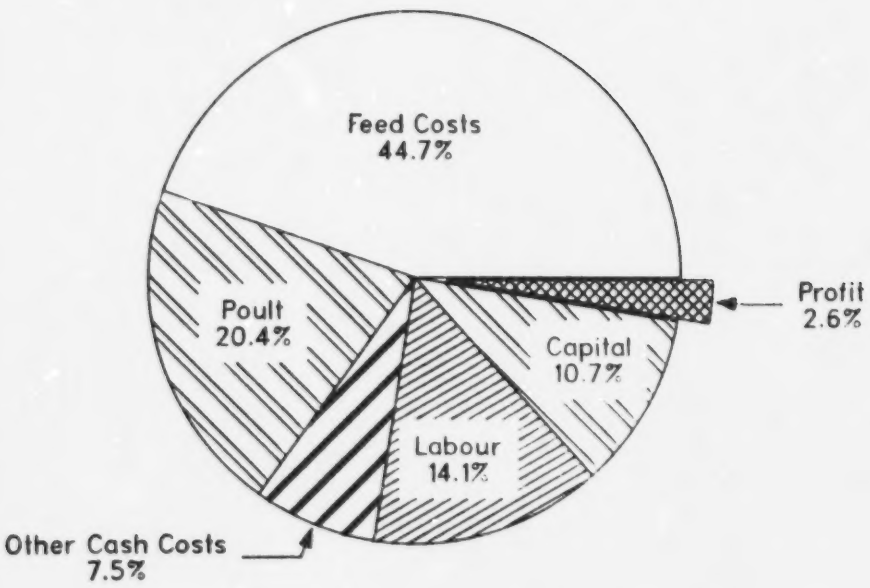
2 The index for each item is determined by the ratio of inflation and depreciation rates. For instance, if the inflation rates of power machinery during some period is lower than the depreciation (10%), the calculated current market value will be lower than the original value. The decline in value through use (depreciation) is not fully offset by the inflation.

Considering the alternative investment returns such as investment certificates, in 1985 the 2.7 per cent return on equity is below the expected level as shown in Table 4; the price for ungraded eggs was 6.1¢ short of the expected 10% return.

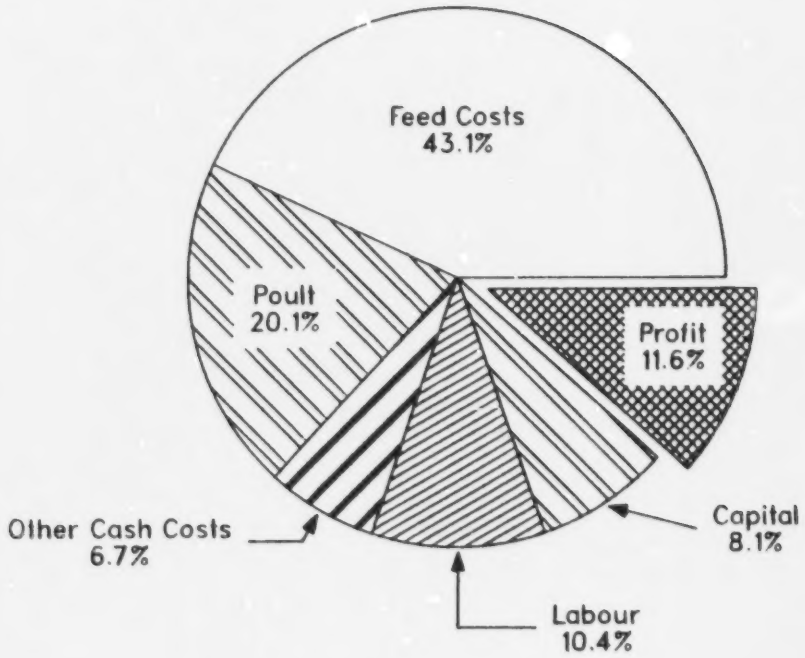
TABLE 4: EXPECTED RETURN	1985 ACTUAL	AT 10% RETURN
	¢ Per Dozen	
Blend Price	95.4	101.5
Bird Salvage Value	1.7	1.7
Levy	-9.9	-9.9
Gross Income	87.2	93.3
Pullet Cost	17.8	17.8
Feed Cost	39.0	39.0
Other Cash Costs	6.5	6.5
Labour Cost	12.3	12.3
Capital Cost	9.4	9.4
Total Cost	85.0	85.0
Return to Equity (¢)	2.2	8.3
Return to Equity (%)	2.7	10.0

Egg Production

Division Of Income Dollar
Provincial Average



Division Of Income Dollar
High Management



Management

Management is concerned with the organizing, planning, directing and supervising of the farm.

Table 2 shows some of the more important indicators of the management. One very important indication of good management is bird productivity. Average productivity in Alberta from the surveyed participants reached the level of 21.0 dozen per bird.

Feed, labour and capital efficiency are measured by feed conversion, hours per bird and production per capital. The values achieved in 1985 for these resources were: 2.05 kg/dozen, 8.41 hours per bird and 1.01 dozen per dollar of capital, respectively.

Another management indicator is flock mortality, which is expressed in terms of per cent loss from the layer quota number. The 1985 mortality was approximately 8.9 per cent.

The size of the layer operation is given by the average number of layers. This number is important for the calculation of values such as productivity, cost per bird, etc. Normally, the average number of layers is given by beginning number plus ending number divided by two. Considering the enforcement of the quota policies, the beginning number is officially equal to quota and the end number depends on death-loss. The calculation of average number is complicated for the multiple flock farms. The allowed quota value is replenished several times during the year depending on the number of different flock ages. The average number for multiple flocks is higher and tends to be closer to the quota. The footnote[3] indicates the formula for determining the average number of layers when quota, mortality and number of flocks are given.

Using the formula in the footnote, the quota for an average number of 5,461 layers, as indicated in Table 2, would be approximately 5,615 birds. The annual death-loss of 8.9 per cent corresponds to 497 birds.

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3 $A = Q \times 1 - \frac{m}{2F}$

Where: A average number of layers
Q quota number of birds
F number of flocks
m per cent mortality

Management Group

Every farm operator tries to make management decisions that maximize the return on his farm. In the following table we attempted to identify the top management group and compare them with the standard or average group.

Five factors were selected to measure the level of management:

1. Productivity
2. Cost per Dozen
3. Dozen per Dollar of Feed
4. Dozen per Work Hour
5. Dozen per Dollar of Capital

The average value for each management factor was determined for the total sample of producers. The top management group (25% of producers) consists of producers who exceeded the average in at least four factors. In other words, the producer who exceeded average in the first four factors and was below average in the fifth factor or any other combination of four factors would qualify for this group

The findings, as displayed in Table 5, show the magnitude of the difference between the top group and the standard group. The productivity and the cost of production were better by 1.4 and 11.8 per cent, respectively. The labour efficiency, as well as capital cost, was much better for the top group. This could be attributed to excess barn capacities for some producers. Along with the five management factors several additional factors are listed for comparison.

TABLE 5:

	MANAGEMENT GROUPS	
	STANDARD GROUP	TOP (25%) GROUP
Productivity (Doz./Bird)	21.0	21.3
Cost Per Dozen	85.0	75.0
Dozen per Dollar of Feed	2.56	2.73
Dozen per Work Hour	51.2	88.6
Dozen per Dollar of Capital	1.01	1.68
Average Price (¢)	95.4	93.6
Feed Conversion (kg/dozen)	2.05	1.95
Hours per Bird	0.41	0.24
Investment per Bird	20.9	12.65
Mortality (%)	8.9	8.8
Debt/Capital Ratio	0.16	.28
Size of Operation (no. of layers)	5461	6366
Years Farming	16	14

Table 6 illustrates the acceptable total debt load per bird at various levels of productivity and interest rates. The basic repayment capacity is given by gross return, i.e. money available for resource ownership payment, consisting of rent, depreciation, paid and equity interest ($2.30 per bird). This table should be used as a guideline only; each individual situation is different.

TABLE 6: ACCEPTABLE TOTAL DEBT LOAD PER BIRD

DOZEN PER BIRD	INTEREST RATE*	10%	11%	12%	13%	14%	15%
17		14.15	13.38	12.67	12.02	11.42	10.88
19		15.82	14.96	14.97	13.44	12.78	12.16
20		16.66	15.75	14.92	14.15	13.45	12.81
22		18.33	17.33	16.41	15.57	14.80	14.09
24		20.00	18.91	17.91	17.00	16.15	15.38

*At 15 years repayment period.

V. NATIONAL PERSPECTIVE

The national cost survey conducted under the auspices of CEMA differs in some areas from our provincial concept. Consequently one must be careful in comparing the results.

First of all, the national sample is selected from the producers with 10,000 to 50,000 birds. Not many producers would qualify for this group in Alberta. Ironically, the absence of over base quota, and inter-provincial quota transfer policies may well have curtailed the growth of larger enterprises in Alberta. The occurrence of excess capacity and the resulting higher capital cost are evident. The sample of producers from this large farm group does not represent the provincial mosaic. The fact is that the average size in Alberta is something in the neighbourhood of 6,000 birds.

In conducting cost surveys we have tried to avoid the use of imputed or estimated values as much as possible. Consequently, the final costs are true costs as they occur on the Alberta farms. The debt/equity ratio, labour hours and rates, interest on capital and working capital are actual values determined from the selected sample.

The final return to equity is a barometer of the industry's economic performance.

APPENDIX

I. POULTRY FARM BUSINESS ANALYSIS 19__

Name: _____

Phone: _____

	3	11	18	25	32	39	46	53	60	67	74
Town:		Buildings Used for Poultry								Poultry Equipment	
ORIGINAL VALUE											
POULTRY SHARE($)	02										
AGE	03										
		Poultry Equipment		Power Machinery Used for Poultry							
ORIGINAL VALUE											
POULTRY SHARE($)	04										
AGE	05										
		Non-Power Machinery Used for Poultry					Value of Land	Birds No. Quota	Mortality No.	Pullet No. Purchased	Inventory
ORIGINAL VALUE							Site ac: ___				
POULTRY SHARE($)	06										Begin. ___
AGE	07						Farm Receip.	Egg Rec. %	Years Farm.	No. of Flocks	End
		Outstanding Loans on:					Poultry Receipts				
		Land	Buildings	Machinery	Other Cap.		XL Eggs	Large	Medium	Small	B	C
VALUE												
POULTRY SHARE($)	08											
INTEREST RATE	09						Quantity (Doz.)					

II. POULTRY FARM BUSINESS ANALYSIS 19__

	3	11	18	25	32	39	46	53	60	67	74
		Cracks					Private Sales				
		Doz.	Value	(Doz.) Rejects	($) Board Fees	($) Freight	Doz.	Value	Birds Sale	Pullet Purchases	Operating Interest($)
TOTAL FARM										Price:___	
POULTRY SHARE($)	10										
		Medication Cost	Barn Supplies	Utilities	Fuel, Oil Grease	Machinery Repairs	Building Repairs	Insurances Taxes	Custom Work	Cash Rent	Other Expenses
TOTAL FARM											
POULTRY SHARE($)	11										
		Grain Feed			Rations and Supplements					Other Feed	
		Barley			Starter						
QUANTITY FED per DAY (kg)											
NO. of DAYS											
TOTAL TONNES	12										
PURCHASE PRICE	13										
HOME GROWN PRICE*	14										
		Operator	Hired Paid Labour				Unpaid Family Labour				
POULTRY CHORES (hours/day)											
NO. of DAYS											
POULTRY HOURS	15										
WAGES INCLUDING BOARD	16	per Hour*					per Hour*				

*Office Use

ENTERPRISE RESEARCH PROJECT 1985 TOP (25%) MANAGEMENT

TABLE EGGS COSTS AND RETURNS

			TOTAL	DOLLARS PER HEN	CENTS PER DOZEN
EGG SALES	135384.37	DOZEN	126714.50	19.91	93.60
BIRDS SOLD			1659.30	0.26	1.23
SALE DEDUCTIONS			-13414.40	-2.11	-9.91
OTHER RECEIPTS					
A. GROSS INCOME			114959.37	18.06	84.91
PULLET COSTS	3.48	$/PULLET	23108.50	3.63	17.07
FEED COSTS	187.37	$/TONNE	49513.70	7.78	36.57
MEDICATION			189.30	0.03	0.14
BARN SUPPLIES			109.60	0.02	0.08
ENERGY			3116.80	0.49	2.30
MACHINERY & BUILDING REPAIRS			315.70	0.05	0.23
FREIGHT			1080.30	0.17	0.80
OPERATING INTEREST			834.10	0.13	0.62
OTHER EXPENSES			2072.90	0.33	1.53
HIRED LABOUR	415.10	HOURS	3818.50	0.60	2.82
FAMILY LABOUR	1135.95	HOURS	8101.77	1.27	5.98
LABOUR COSTS	7.69	$/HOUR	11920.27	1.87	8.80
B. TOTAL VARIABLE COSTS			92261.12	14.49	68.15
RENT			220.00	0.03	0.16
INSURANCE & TAXES			1115.70	0.18	0.82
DEPRECIATION			5818.70	0.91	4.30
INTEREST (CAP. LOANS)	9.55	%	2126.88	0.33	1.57
C. TOTAL CAPITAL COSTS			9281.27	1.46	6.86
D. PRODUCTION COSTS (B+C)			101542.44	15.95	75.00
GROSS RETURN(A-B)			22698.23	3.57	16.77
RETURN TO EQUITY (A-D)	23.03	%	13416.98	2.11	9.91
INVESTMENT:					
BUILDINGS	12.25	YEARS	54295.00	8.53	40.10
MACHINERY	6.41	YEARS	24348.03	3.82	17.98
LAND & SUPPLIES			1890.00	0.30	1.40
TOTAL INVESTMENT			80533.00	12.65	59.48
EQUITY	72.34	%	58256.23	9.15	43.03

MANAGEMENT:

YEARS FARMING	14.00	
AVERAGE NUMBER OF LAYERS	6365.85	
NUMBER OF FLOCKS	1.80	
PRODUCTIVITY	21.27	DOZEN
HOURS PER BIRD	0.24	
FEED CONVERSION FACTOR	1.95	KG/DOZEN
PRODUCTION/CAPITAL	1.68	DOZEN/$
MORTALITY PERCENT	8.77	